

# DAILY PRECIPITATION WHICH CAUSED THE DESTRUCTIVE FLOODS IN EAST GULF STATES IN DECEMBER, 1919.

The daily precipitation at rainfall stations in the watersheds of the rivers in severe flood in the east Gulf States, in December, 1919 (see this REVIEW 47:894), has been adjusted to a 24-hour basis ending at 8 a. m., seventy-fifth meridian time, and is given in the small table below for the four days ending December 10, 1919.

*Average daily precipitation in east Gulf States Dec. 7-10, 1919.*

Watershed.	Number of stations.	Dec. 7.	Dec. 8.	Dec. 9.	Dec. 10.	Total.	Drainage area.
Pearl River, Miss. ....	13	0.80	2.32	2.65	0.29	6.06	8,024
Pascagoula River, Miss. ....	7	0.02	2.25	4.60	0.88	7.56	7,694
Cosa and tributaries, Ala. ....	15	0.70	2.01	2.54	1.26	6.51	.....
Cosa, Ga. ....	4	0.68	1.11	2.86	1.00	5.65	.....
Tallapoosa, Ala. ....	7	0.24	1.64	2.98	3.47	8.33	.....
Cahaba, Ala. ....	5	1.31	2.25	4.16	0.67	8.39	.....
Alabama and tributaries, Ala. ....	32	0.59	2.00	3.00	1.90	7.49	23,820
Chattahoochee, Ga. ....	14	0.58	1.30	2.03	2.50	6.41	9,131
Flint, Ga. ....	9	0.21	1.19	1.20	0.99	3.59	8,131
Oconee, Ga. ....	6	0.34	0.99	1.22	1.58	4.13	5,346
Ocmulgee, Ga. ....	8	0.17	1.40	0.81	1.14	2.52	6,148
Savannah, Ga. ....	10	0.35	1.35	1.69	1.63	5.02	11,402

# MEAN LAKE LEVELS DURING JANUARY, 1920.

By UNITED STATES LAKE SURVEY.

[Dated: Detroit, Mich., Feb. 4, 1920.]

The following data are reported in the Notice to Mariners of the above date:

Data.	Lakes.*			
	Superior.	Michigan and Huron.	Erie.	Ontario.
Mean level during January, 1920:	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>
Above mean sea level at New York.....	602.08	580.08	571.38	245.31
Above or below—				
Mean stage of December, 1919.....	—0.25	—0.10	—0.43	—0.43
Mean stage of January, 1919.....	—0.18	—0.72	—0.80	—0.78
Average stage for January, last 10 years.....	+0.03	+0.14	—0.25	—0.07
Highest recorded January stage.....	—0.70	—2.59	—2.17	—2.20
Lowest recorded January stage.....	+1.20	+1.00	—0.42	+1.51
Average relation of the January level to—				
December level.....		—0.2	—0.1	0.0
February level.....		0.0	0.0	—0.1

\* Lake St. Clair's level: In January -573.10 feet.

# EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, JANUARY, 1920.

By J. WARREN SMITH, Meteorologist in Charge.

The month on the whole was rather favorable for agricultural interests in most sections of the country. Much mild and pleasant weather for the season was experienced from the Great Plains westward and also in the South, which permitted of considerable outdoor work. It was mostly cold and disagreeable, however, from the Ohio Valley and Lake region eastward and northeastward, and winter farm activities were at a standstill in these districts during most of the month. Frequent rains and wet soil hindered field work in the lower Mississippi Valley States, and drought retarded the growth of vegetation in the south Atlantic and lower Pacific coast districts, but otherwise moisture conditions were not, as a rule, unfavorable.

The weather was mostly favorable for winter grains, except for the frequency of alternate freezing and thawing conditions in portions of the Ohio Valley and some lack of moisture in the west-central Great Plains. Winter

oats and other grain crops made satisfactory progress in the southern States, and cereals were well protected by snow cover from the Lake region eastward. There was some damage to tender truck in the South by frost, but on the whole hardy winter truck did well.

The generally mild weather and absence of storms were favorable for stock in the West and Northwest and considerable grazing areas became available by reason of snow melting. In the far Northwest stock recuperated considerably from the effects of the severe weather of the preceding month, but ranges continued poor in California as a result of the continued drought.

The weather, in general, was not unfavorable for orchards, although considerable damage was done from the Ohio Valley eastward by the severe ice storm the latter part of the month. It was mostly favorable for citrus fruit in California and Florida, and no widespread frost damage was experienced.